

IN THE CLAIMS:

The following is a complete listing of the claims in this application, reflects all changes currently being made to the claims, and replaces all earlier versions and all earlier listings of the claims:

1. (Previously Presented) A print apparatus capable of forming a color image by applying ink materials of plural colors in different amounts onto a print medium while scanning a recording head in two directions, said apparatus comprising:

control means for applying plural ink materials for each pixel area to allow a gradation recording, the pixel area being a unit area for expressing thereon a primary color or a secondary color,

wherein said control means applies ink materials on a pixel area for expressing thereon the secondary color area so that dots of the secondary color may be formed on plural positions of the pixel area while making different the orders of application of ink materials of plural colors used for expressing the secondary color, and conducts the gradation recording using a pattern of applying an ink material of relatively less amount on a diagonal position of the pixel area and a pattern of applying an ink material of relatively more amount on a diagonal position of the pixel area.

2. (Previously Presented) The print apparatus according to Claim 1, wherein the ink material of another color is applied plural times onto the pixel area.

3. (Previously Presented) The print apparatus according to Claim 1, wherein dots of the ink materials of the plural colors applied onto the pixel area overlap at least in part.

4. (Previously Presented) The print apparatus according to Claim 2, wherein a plurality of dots of the secondary color are laid in different application orders of the ink material of the certain color and the ink material of the another color in the pixel area.

5. (Previously Presented) The print apparatus according to Claim 1, wherein said recording head comprises a plurality of recording elements arranged in such a manner that recording elements for applying the ink material of the certain color are symmetric in a scanning direction with respect to the recording element for applying the ink material of the another color.

6. (Original) The print apparatus according to Claim 5, wherein said recording head comprises recording elements for applying at least ink materials of cyan, magenta, and yellow and wherein with respect to a recording element corresponding to either one color the recording elements corresponding to the other colors are located in symmetry in the scanning direction.

7. (Original) The print apparatus according to Claim 5, wherein said recording head comprises two sets of recording elements for applying at least ink materials of cyan, magenta, and yellow arranged in symmetry in the scanning direction.

8. (Original) The print apparatus according to Claim 6 or 7, wherein said recording head further comprises a recording element for applying black ink.

9. (Previously Presented) The print apparatus according to Claim 5, wherein the ink materials of the plural colors applied to the pixel area are applied by one scan of said recording head.

10. (Original) The printing apparatus according to Claim 5, wherein, in said recording heads having symmetric arrangement, the recording elements for applying ink materials of different amounts are arranged alternately.

11. (Previously Presented) The printing apparatus according to Claim 10, wherein, in said recording heads having symmetric arrangement, the recording elements for applying ink materials of the different amounts are arranged alternately and in a reverse order.

12. (Previously Presented) The print apparatus according to Claim 1, wherein the ink materials of the plural colors applied to the pixel area are applied by plural scans in different directions of said recording head.

13. (Previously Presented) The print apparatus according to Claim 1, comprising a memory for storing data for selectively applying the ink materials of the plural colors onto the print medium in accordance with the color image and for storing data for enabling the ink material of the certain color to be applied plural times onto the pixel area.

14. (Previously Presented) The print apparatus according to Claim 13, wherein the memory is a print buffer.

15. (Previously Presented) The print apparatus according to Claim 6, comprising a memory for storing data for selectively applying the ink materials of the plural colors onto the print medium in accordance with the color image, in correspondence to each of the plurality of recording elements.

16. (Original) The printing apparatus according to Claim 1, capable of executing a first mode for applying ink materials with a relatively larger amount and a second mode for applying ink materials with a relatively smaller amount.

17. (Previously Presented) The printing apparatus according to Claim 1, wherein the ink material of a relatively larger amount, the ink material of a relatively smaller amount and the ink materials of relatively larger and smaller amounts are applied onto the pixel area.

18. (Original) The print apparatus according to either one of Claims 1 to 17, wherein said recording head ejects the ink materials by heat.

19. (Previously Presented) A print apparatus capable of forming a color image by applying ink materials of plural colors in different amounts onto a print medium while scanning a recording head in two directions,

wherein, in order to make the order of application of an ink material of a certain color out of ink materials of plural colors applied in at least one kind of amount onto a pixel area for expressing thereon a process color using ink materials of plural color to form the process color, symmetric with respect to an ink material of another color, at least the ink materials of the certain color are applied onto the pixel area, and

ink materials to be applied with relatively less amount are applied on diagonal positions of the pixel area, while ink materials to be applied with relatively more amount are applied on diagonal positions of the pixel area, different from the positions where the ink materials are applied with relatively less amount.

20. (Currently Amended) A print method capable of forming a color

image by applying ink materials of plural colors in different amounts onto a print medium while scanning a recording head in two directions, said method comprising:

a first step of applying an ink material of a certain color for forming a secondary color in at least one kind of amount onto a pixel area for expressing thereon the secondary color;

a second step of applying in the amount onto the pixel area an ink material of another color for forming the secondary color in combination with the certain color, after the application of the ink material of the certain color; and

a third step of applying the ink material of the certain color in the amount onto the pixel area, after the application of the ink material of the another color,

wherein the ink materials are applied onto the pixel area so that dots of the secondary color may be formed at plural positions of the pixel area while making different the orders of application of the ink materials of plural colors for expressing the secondary color, and

wherein the gradation recording is conducted using a pattern of applying an ink material of relatively less amount on a diagonal position of the pixel area and a pattern of applying an ink material of relatively more amount on a diagonal position of the pixel area.

21. (Previously Presented) The print method according to Claim 20, wherein said recording head comprises two sets of recording elements for applying the ink material of the certain color, which are arranged in symmetry in a

scanning direction with respect to a recording element for applying the ink material of the another color, and

wherein said first to third steps are carried out by one scan of said recording head.

22. (Previously Presented) A print method capable of forming a color image by applying ink materials of plural colors in different amounts onto a print medium while scanning a recording head in two directions, said method comprising:

a first step of applying an ink material of a certain color for forming a secondary color onto a pixel area for expressing thereon the secondary color and applying an ink material of another color for forming the secondary color in combination with the certain color, the ink materials being applied in the order named, in at least one kind of amount onto the pixel area; and

a second step of applying the ink material of the certain color and the ink material of the another color in an order symmetric with the order, in the amount onto the pixel area,

wherein a position within the pixel area where the ink material is applied in said first step and a position within the pixel area where the ink material is applied in said second step are on a diagonal line, and

ink materials to be applied with relatively less amount are applied on diagonal positions of the pixel area, while ink materials to be applied with relatively more

amount are applied on diagonal points of the pixel area different from the positions where the ink materials are applied with relatively less amount.

23. (Previously Presented) The print method according to Claim 22, wherein said recording head comprises two sets of recording elements for applying the ink material of the certain color and recording elements for applying the ink material of the another color arranged in symmetry in the scanning direction, and

wherein said first step and said second step are carried out by one scan of said recording head.

24. (Original) The print method according to Claim 23, wherein said first step and said second step are carried out by a plurality of scans in different directions of said recording head.

25. (Previously Presented) The printing apparatus capable of forming a color image by applying ink materials of plural colors in different amounts onto a print medium while scanning a recording head,

wherein in said recording head, with respect to the ink material of at least one color, first and second arrays of recording elements, in which the recording elements for applying ink materials of different amounts are arranged with a predetermined pitch, are arranged in the direction of the scanning, and, in the first and second arrays of the recording elements, the recording elements for applying ink materials of a same amount are arranged with a displacement by the predetermined pitch in the direction of the array.



26. (Previously Presented) A print apparatus according to claim 1, wherein said control means conducts the gradation recording using a pattern of applying an ink medium of relatively less amount on a diagonal position of the pixel area, a pattern of applying an ink material of relatively more amount on a diagonal position of the pixel area, and a pattern of applying the ink material of relatively less amount and the ink material of relatively more amount on respectively different diagonal positions of the pixel area.

27. (Canceled)